

REMARKS

The applicant appreciates the Examiner's thorough examination of the application and requests reexamination and reconsideration of the application in view of the preceding amendments and the following remarks.

In accordance with the subject invention, two crimp tubes, for example, can be used as crimp devices in conjunction with a tensioning device to place a suture in tension. Then, a special crimping tool is used in connection with a third crimp tube to retain the suture in tension without slippage, but without deformation of the suture which would cause a stress riser and possible failure.

The Examiner objects to claims 1-13 and 35-42 as being unclear. In response, the applicant has amended claim 1 to clarify that the suture can be placed in tension. Further, the applicant has cancelled claim 41, and corrected the dependencies of claims 35-37, 40 and 42 such that claims 37-40 and 42 properly depend from claim 34. Accordingly, the applicant submits that the claim amendments have overcome the Examiner's objections.

The Examiner also rejects claim 23 under 35 USC §112, second paragraph as being indefinite, stating that there is no antecedent basis for "the gap". The applicant has amended claim 23 to properly depend from claim 22, which provides antecedent basis for "the gap". Accordingly, the applicant submits that the §112 rejection has been overcome.

The Examiner rejects claims 34, 35, 38 and 40 under 35 USC §102(b) as being anticipated by U.S. Patent No. 3,314, 135 to *Smith*; claims 34, 35, 37 and 38 as being anticipated by U.S. Patent No. 4,229,849 to *Theiler*; and claims 34, 35 and 39 as being anticipated by U.S. Patent No. 6,684,439 to *Jeske et al.*.

The Examiner also indicates that several of the claims of the applicant, including claim 41, would be allowable if rewritten in independent form. To advance the prosecution of the

subject application, independent claim 34 has been amended to include the features of dependant claim 41. Further, new claim 47 corresponds to original claim 34 and allowable claim 42. Accordingly, independent claims 34 and 47 and their respective dependant claims are now in condition for allowance, and the rejection of claims 34, 35 and 37-40 has been overcome.

The Examiner rejects claims 1, 7, 8-10, 14-15, 19-21, 28, 30 and 34 under 35 USC §102(b) as being anticipated by U.S. Patent No. 5,476,465 to *Preissman*, and claims 1-2, 4-5, 7, 11, 14-17, 19-20, 34-35, 37-38 and 40 as being anticipated by U.S. Patent No. 5,741,260 to *Songer et al.* As explained above, claims 34-35, 37-38 and 40 are patentable over the references as independent claim 34 now includes the features of allowable claim 36.

Amended claim 1 of the subject application is directed to a crimping system comprising at least one crimp tube for use in a surgical procedure, the at least one crimp tube having an aperture formed along a long axis of the crimp tube, a suture to be located within the aperture of the crimp tube, a set of crimp devices for attachment to first and second portions of the suture, and a unique crimping tool. The crimping tool includes a first arm having a proximal end and a distal end, the proximal end comprising a handle and the distal end comprising a first jaw, a second arm having a proximal end and a distal end, the proximal end comprising a handle and the distal end comprising a second jaw, the second arm hingedly connected to the first arm, a first crimping member integral with the first jaw of the first arm, the first crimping member having a first inner surface width, and a second crimping member integral with the second jaw of the second arm, the second crimping member having a second inner surface width.

Preissman is directed to a surgical cable crimp for securing a surgical cable in a loop. The crimp has body 18 with a head 24 and a neck 22, with a first longitudinal bore 20 in the crimp body and a second bore 26 offset from the first bore through the head. A surgical cable passes through the second bore and then may be looped about a portion of a patient's body and

inserted into the first bore. The neck is then crimped to secure the surgical cable and form a secured loop.

Songer is directed to a cable system for a bore securance. The system of *Songer* includes surgical crimping pliers 10 which comprise a pair of operating handles 12, 14 and connected, opposing crimping jaws 16, 18. The jaws define opposed recesses for carrying and crimping a tubular crimp member 36 which is configured to carry a plurality of multistrand cable sections. A capstan 44 is carried on one of the handles for winding cable portions carried by the crimp member.

However, neither *Preissman* nor *Songer* disclose a set of crimp devices for attachment to first and second portions of the suture as recited in claim 1 of the subject application in order to place the suture in tension prior to securing it in its tensioned state. Independent claims 14, 21 and new independent claim 45 also include this feature. As shown in the subject specification, in addition to crimp tube 12 used to secure the suture, the invention also includes crimp devices 34A, 34B which are attached to first and second ends of the suture. See page 14, lines 4-12 and Fig. 15 of the subject application. The crimp devices are engageable by a tensioning device to adjust the tension of the suture.

Preissman and *Songer* fail to disclose the crimp devices as claimed by the applicant. *Preissman* and *Songer* only disclose a cable crimp used to secure the suture. The references do not disclose, teach, or suggest attaching crimp devices to portions of the suture as claimed by the applicant to place the suture in tension before it is secured in a tensioned state via the crimp tube and the crimping tool.

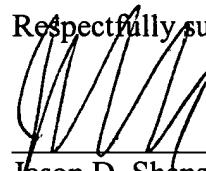
Accordingly, independant claims 1, 14, 21 and 45, and their respective dependant claims, are novel over each of the references.

The Examiner also rejects claims 10, 21-22, 24-25, 27 and 30-31 under 35 USC 103(a) as being unpatentable over *Songer* in view of *Preissman*, and claims 2, 4-5, 9, 22, 24-25, 27, 29, 35, 37-38 and 40 as being unpatentable over *Preissman* in view of *Songer*.

As discussed above, neither *Preissman* nor *Songer* disclose the use of crimp devices in connection with a tensioning device to tension the suture as claimed by the applicant. Therefore, the combination of references fails to disclose the present invention. Accordingly, the claims are patentable over the cited references.

Each of the Examiner's rejections has been addressed or traversed. Accordingly, it is respectfully submitted that the application is in condition for allowance. Early and favorable action is respectfully requested.

If for any reason this Response is found to be incomplete, or if at any time it appears that a telephone conference with counsel would help advance prosecution, please telephone the undersigned or his associates, collect in Waltham, Massachusetts, (781)890-5678.

Respectfully submitted,


Jason D. Shanske
Reg. No. 43,915